

WHAT IS CLAIMED IS;

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1. A navigation display system for displaying a specified location with a map on display equipment, comprising
 - 5 a map display domain setting means for setting up a display domain of a map a map memory for storing map data to be indicated on said display equipment,
 - 10 a map display means for reading out the map of the display domain set by said map display domain setting means, from said map memory,
 - 15 a retrieval condition setting means for setting up retrieval condition of the individual information to indicate with the map on said display equipment,
 - 20 an individual information reception means for receiving dynamic information part of said individual information supplied from the outside, by retrieving it with the display domain output from said map display domain setting means and the retrieval condition output from said retrieval condition setting means, and for outputting said dynamic information part corresponding to specified location on the map,
 - 25 an individual information memory for storing static information part of said individual information corresponding to said specified location on the map,
 - 30 a receipt information analyses means for outputting said individual information combined with said dynamic part from said individual information reception means and said

static information part from said individual information memory corresponding to said specified location on the map, and

an individual information display means for
5 displaying said individual information from said receipt information analyses means on said display equipment.

2. A navigation display system as defined in claim 1,
a ~~characterized in that~~ *wherein:*

said receipt information analyses means outputs at
10 least one part of said individual information as an icon, and

said individual information display means displays
said at least one part of said individual information as
said icon.

15 3. A navigation display system as defined in claim 1,
further comprising

a ~~an~~ icon setting means for *setting up* an icon
a corresponding to ~~said~~ individual information output from
a said individual information memory, *wherein* and

20 said individual information display means displays
at least one part of said individual information with an
a icon from said icon setting means. *obtained*

4. A navigation display system as defined in claim 1,
a ~~characterized in that~~ *wherein:*

25 (said (special) location) is a car's position.

5. An information display system, comprising

a map display domain setting means to set a display domain of a map,

a map memory means to store a map data,

a map display means to read out and display said map
5 data corresponding to a domain set by said map display
domain setting means from said map memory means,

a retrieval range setting means to set a retrieval range including at least a retrieve object property in order to retrieve a needed information from retrieved objective data.

a data transmission means to transmit said retrieval range set by said retrieval range setting means,

15 a data receiver to receive data sent from outside,
said data including at least one individual information
retrieved according to said retrieval range transmitted by
said data transmission means and an information relating to
at least position on said map contained in said individual
information,

a received data analysis means to discriminate said
20 individual information contained in said data received by
said data receiver,

an icon setting means to set an icon decided by said retrieve object property according to said every individual information discriminated by said received data analysis means,

an icon display position setting means to set a display position of said icon set by said icon setting

means based on said information of said position on said map contained in said individual information and said map display domain set by said map display domain setting means according to said individual information discriminated by 5 said received data analysis means, and

an icon display means to display said icon set by said icon setting means according to said every individual information discriminated by received data analysis means, on the map displayed by said map display means, at said position set by said icon display position setting means, whereby

15 said information display system characterized by displaying said icon on said map corresponding to said individual information retrieved in a range of said set retrieval range.

6. An information display system as defined in claim 5,
further comprising:

20 an icon property setting means for changing a display form of said icon set by said icon setting means, according to said icon property information contained in said individual information sent from the outside, wherein
25 said icon display means ~~displaying~~ ^{displays} said icon set by the icon setting means, corresponding to said individual information discriminated by said received data analysis means, on the map displayed by said map display means, at said position set by said icon display position setting

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means, according to a display form set by said icon property setting means, *thereby whereby*

said display form of said icon is changeable according to said icon property information contained in 5 said individual information.

7. An information display system as defined in claim 5 or 6, further comprising:

a *a* retrieval range display means for displaying a 10 domain showing a retrieval object area contained in said retrieval range and set by said retrieval range setting *so that* means on the map ~~top~~, *thereby* said retrieval object area *a* is indicated on the map.

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15 8. An information display system as defined in claim 7, further comprising

a temporary memory means for memorizing said retrieval object area of said data received by said data receiver and a receipt time displayed by said retrieval 20 range drawing means when receiving said data, thereby a range of said data already received and stored in said temporary memory means and said receipt time are displayed by said retrieval range drawing means.

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25 9. An information display system as defined in claim 5 or 6, further comprising:

a icon store means to store *a* plurality of said icons,

*Whereby
thereby*

said icon set by said icon setting means *are* selectively provided from said icon store means.

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5 10. An information display system as defined in claim 5 or 6, wherein

10 said individual information sent from outside contains ~~an~~ another icon ~~furthermore~~ and said icon setting means sets said another icon contained in said individual information.

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act* 15 11. An information display system as defined in claim 10, further comprising an icon store means to store plurality of said icons, and

20 an icon presence judgment means to judge presence of a needed icon in said icon store means and to provide an icon request command to said data transmission means when said needed icon does not present, thereby an icon transmission request is transmitted using said data transmission means when said icon presence judgment means judges no presence of said needed icon.

12. An information display system as defined in claim 5 or 6, further comprising

25 an icon overlap judgment means to judge overlap between said icons from size of an icon and position of said icon set by said icon display position setting means,

and to generate a resetting command to said icon display position setting means, said map display domain setting means or said icon property setting means when said icons are overlapped, thereby

5 when said overlap between said icons is judged by said icon overlap judgment means, said display position of said icon is changed by said icon overlap judgment means, said map display domain is changed by said map display domain setting means, or said size of said icon is changed
10 by said icon property setting means, so that said overlap between said icons is controlled to be less than half of said size of said icon.

13. An information display system, comprising
15 a data receiver to receive data sent from outside, said data including at least one individual information containing an icon information capable to at least set icon, a received data analysis means for discriminating said individual information contained in the data received
20 by said data receiver,

 an icon setting means to set said icon according to said icon information contained in said every individual information discriminated by said received data analysis means,

25 an icon display position setting means to set a display position of said icon set by said icon setting means based on said individual information discriminated by

said received data analysis means,

an icon display means to display said icon set by said icon setting means according to said every individual information discriminated by received data analysis means,

5 at said position set by said icon display position setting
means,

a received data / position memory means to respectively store said individual information discriminated by said received data analysis means, with said display position of said icon set by said icon display position setting means

an icon select means capable to select one of said icons displayed by said icon display means, and

15 a detailed data display means to retrieve said individual information corresponding to said icon selected by said icon select means, from said received data / position memory means and to display detailed data relating to said individual information taken out, thereby said individual information sent from outside is displayed by 20 using said icon, and said icon is provided capable to be selected, and when said icon is selected, said detailed data of said individual information are displayed furthermore.

25 14. An information display system as defined in claim 13,
further comprising

a map display domain setting means to set a display

domain of said map,

a map memory means to store map data, and

a map display means to read out said map said domain set by said map display domain setting means from said map
5 memory means, wherein

said individual information sent from outside contains information relating to said position on said map furthermore, and said icon display position setting means sets said position to display said icon set by said icon
10 setting means based on information about said position on said map contained by said individual information, and display domain of said map set by said map display domain setting means, according to the every individual information discriminated by said received data analysis
15 means, thereby

when said icon is selected, an information about said individual information is displayed corresponding to said icon.

20 15. An information display system as defined in claim 13 or 14, wherein said individual information sent from outside contains added information furthermore, ;

25 said detailed data display means displays said added information contained in said individual information corresponding to ^a said selected icon, ; and

a when said icon is selected, ~~said information about~~ said individual information is retrieved from said received

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data.

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16. An information display system as defined in claim 13 or 14, further comprising

5 an inside data store means to store said detailed data, and an inside data retrieval means to retrieve said information related to said individual information from said inside data store means based on said individual information which comes under an icon selected provided by 10 icon select means mentioned above, thereby said detailed information relating to said individual information selected is retrieved from said inside data stored beforehand, and said detailed information is displayed relating to said individual information corresponding to 15 said selected icon.

17. An information display system as defined in claim 16, wherein

20 said individual information sent from outside contains said added information ~~furthermore~~, said detailed data display means displays said detailed information provided by said inside data retrieval means and said added information contained in said individual information, *whereby* said detailed information relating to said corresponding 25 individual information taken out from said inside data stored beforehand, and said added information contained in said corresponding individual information are displayed as

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an information relating to the individual information corresponding to said selected icon.

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18. An information display system, comprising
5 a map display domain setting means to set a display domain of a map,
a map memory means to store a map data,
a map display means to read out and display said map data corresponding to a domain set by said map display
10 domain setting means from said map memory means,
a retrieval range setting means to set a retrieval range including at least a retrieve object property in order to retrieve a needed information from retrieved objective data,
15 a data transmission means to transmit said retrieval range set by said retrieval range setting means,
a data receiver to receive data sent from outside, said data including at least one individual information retrieved according to said retrieval range transmitted by
20 said data transmission means and an information relating to at least position on said map contained in said individual information,
a received data analysis means to discriminate said individual information contained in said data received by
25 said data receiver,
an icon setting means to set an icon decided by said retrieve object property according to said every individual

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information discriminated by said received data analysis means,

an icon property setting means to change a display form of said icon set by said icon setting means according 5 to an icon property information contained in said individual information,

an icon display position setting means to set a display position of said icon set by said icon setting means based on said information of said position on said 10 map contained in said individual information and said map display domain set by said map display domain setting means according to said individual information discriminated by said received data analysis means,

an icon display means to display said icon set by 15 said icon setting means according to said every individual information discriminated by received data analysis means, on the map displayed by said map display means, at said position set by said icon display position setting means,

a received data / position memory means to 20 respectively store said individual information discriminated by said received data analysis means, with said display position of said icon set by said icon display position setting means,

an icon select means capable to select one of said 25 icons displayed by said icon display means,

an inside data store means store said detailed data,

an inside data retrieval means to retrieve said

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information related to said individual information corresponding to said icon selected by said icon select means from said inside data store means, and

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5 a detailed data display means to display said detailed information retrieved by said inside data search means, whereby

10 said icon is displayed on said map corresponding to said individual information retrieved in a range of said retrieval range set by said retrieval range setting means so as to be capable of being selected said icon, and when said icon is selected, said detailed information is displayed relating to said individual information corresponding to said selected icon stored beforehand in said inside data store means.

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19. An information display system as defined in claim 18, further comprising:

a a select icon emphasis means to emphasize said icon selected with said icon select means by changing a display form of said icon which is displayed, *whereby*
a 20 said icon selected by said icon select means is displayed *so as* to be easily distinguished from said icon which is not selected.

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20. An information display system as defined in claim 18 or 19, further comprising

a detailed information display domain setting means

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to set a display domain of said detailed information taken out by said inside data retrieval means,

a display configuration change means to change configuration on a screen of the display when said icon is selected by said icon select means or said detailed data display means finishes to display said detailed information, thereby said display configuration on the screen is changed when said detailed information relating to said individual information selected by said icon select means is displayed and said map displaying said icon selected by said icon select means and said detailed information are displayed on the same screen.

21. An information display system as defined in claim 18 or 19, further comprising:

a detailed data display domain calculation means to calculate a display domain of said detailed data taken out by said inside data retrieval means from said display position of said selected icon obtained by said received data / position memory means, wherein

when said detailed information relating to said individual information selected by said icon select means is displayed, a map displaying said icon selected by said icon select means and said detailed information are displayed on the same screen by displaying said detailed information at a domain that does not cover said selected icon.

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22. An information display system, comprising
an individual information receiver to obtain data
transmitted from information offering servers connected
5 through a network,
an information memory means to store an information
provided by said individual information receiver,
an individual information updating means to store
said information provided by said individual information
10 receiver in said information memory means,
a data receiver to receive a retrieval range of said
individual information, a data retrieval means to retrieve
data stored in said information memory means according to
said retrieval range of said individual information
15 provided by said data receiver,
a data processing means to process one or more said
individual information taken out by said data retrieval
means, a data transmission means to transmit a retrieved
result of said data retrieval means processed by said data
20 processing means mentioned above, thereby said individual
information provided from said information offering servers
on a said network is obtained and is stored, and
an information conforming to said retrieval range is
retrieved from said stored individual information and is
25 transmitted.

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23. An information display system as defined in claim 22,

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a wherein characterized in that

a said information sent from said information offering
a servers connected to through said network contains
a different information *which changes over time* whenever being sent, and said
5 individual information stored in said information memory
a means is renewed by using said latest information sent
from the information offering server.

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10 a9 24. An information display system as defined in claim 22
or 23, wherein characterized by further comprising
a server information store means memorizing kind of
said information, address, and access method offered by
said information offering servers according to said
respective information offering servers,

15 a retrieval object server setting means to set a
server to offer said individual information from said
information offering servers registered in said server
information store means, and

an individual information request means to request
20 offering of said information by accessing said information
offering servers set by said retrieval object server
setting means, thereby

25 a latest information is obtained by accessing said
information offering servers and said individual
information is renewed by storing said latest information
in said information store means.

25. An information display system as defined in claim 24, wherein characterized in that

whenever time set beforehand passes, said individual information request means obtains said latest information by accessing said information offering servers, and said individual information is renewed by storing the latest information in said information memory means.

26. An information display system as defined in claim 24, a 10 wherein characterized in that

said retrieve object server setting means sets said information offering server for obtaining said individual information on the basis of said retrieval range of the individual information received by said data receiver;

a 15 said individual information request means obtains said individual information by accessing the information offering server which responds ^{to} ~~a case~~ wherein said retrieve object server setting means sets the information offering server for obtaining said individual information so as to

a 20 offer said ^{current} latest information, and

said individual information is renewed by using said ^{current} latest information.

27. An information display system as defined in claim 22, a 25 wherein characterized further comprising

a 10 a conventional format setting means to set a format to be stored in said information memory means, and

a selected object data setting means to limit property of said data stored in said information memory means, whereby

when said individual information updating means 5 stores said individual information from the information offering server which is obtained by said individual information receiver into said information memory means, and

said individual information is changed into a format 10 set by said conventional format setting means so as to be stored, or said information memory means only stores property set by said selected object data setting means, thereby quantity of said individual information is controlled to be optimum.

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28. An information display system as defined in claim 22, wherein characterized in that

data to receive a message by data receiver mentioned above contain amount of information reduction request 20 presence information furthermore, and

when an information amount reduction request is ordered, said data processing means reduces said information provided from said information retrieval means by a method determined beforehand so that communication 25 complexity is controlled to be optimum.

29. A navigation system comprising:

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an information display system comprising;

5 a map display domain setting means for setting a display domain of a map,

10 a map memory means to store map data of said map, a map display means to read out and display said map belonging to said domain set by said map display domain setting means from said map memory means,

15 a retrieval range setting means to set a retrieval range containing at least a retrieval object property for retrieving an information from a retrieve object,

20 a data transmission means to transmit said retrieval range set by said retrieval range setting means,

25 a data receiver for receiving data sent from outside including one or more individual information retrieved according to said retrieval range transmitted by said data transmission means, said individual information containing at least an information about position on said map and an icon property information,

30 a received data analysis means for distinguishing said individual information contained in the data received by said data receiver,

35 an icon setting means to set an icon decided according to a retrieve object property of said individual information discriminated by said received data analysis means,

40 an icon property setting means to change a display form of said icon set by said icon setting means based on

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said icon property information contained in said individual information,

5 an icon drawing position setting means to set a display position of said icon set by said icon setting means from said information about said position on said map contained in said individual information and said display domain of said map set by said map display domain setting means according to said individual information discriminated from by said received data analysis means,

10 an icon display means to display said individual information discriminated from by said received data analysis means and said icon set by said icon setting means at said position set by said icon drawing position setting means on the map displayed by said map display means,

15 a received data position memory means to respectively store said individual information discriminated by said received data analysis means, with said display position of said icon set by said icon display position setting means,

20 an icon select means capable to select one of said icons displayed by said icon display means,

an inside data store means store said detailed data,

25 an inside data retrieval means to retrieve said information related to said individual information corresponding to said icon selected by said icon select means from said inside data store means,

a detailed data display means to display a detailed

information retrieved by said inside data retrieval means,
and

an information offering equipment comprising;

an individual information receiver to obtain data transmitted from information offering servers connected through a network, an information memory means to store an information provided by said individual information receiver,

an individual information updating means to store
10 said information provided by said individual information
receiver in said information memory means,

a data receiver to receive a retrieval range of said individual information,

a data retrieval means to retrieve data stored in
15 said information memory means according to said retrieval
range of said individual information provided by said data
receiver,

a data processing means to process one or more said individual information taken out by said data retrieval means, and

a data transmission means to transmit a retrieved result of said data retrieval means processed by said data processing means mentioned above, and

a communication means to receive a said data transmitted from said information offering equipment with said information display system mentioned, whereby

a necessary information is retrieved based on a

latest individual information provided by said information offering server, said provided individual information is displayed on said map, and said latest individual information is simply displayed with a little communication complexity by storing said detailed information related to said individual information in said information display system.

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